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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,070	12/20/2001	Alan John Brasier	MUR-8582US	8608

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EXAMINER

EINSMANN, MARGARET V

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 10/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/019,070	BRASIER ET AL.	
	Examiner	Art Unit	
	Margaret Einsmann	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1,3,6-24,27,29,31,39-46 and 48 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1,3,6-24,27,29,31,39-46 and 48 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 6-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reincke, and/or Schmidt, US 3,551,087 in view of Turner et al, US 5,771,495, Carroll, US 3,847,543 and Horlacher et al, US 4,466,900.

Reincke teaches that wool/nylon blend material may be dyed and bleached in the same dyebath with a reductive bleaching agent, sodium dithionite, (which is disodium disulfite as claimed) combined with an optical brightening agent (which is a fluorescent dye). He also teaches that to achieve clear colors on wool, bleaching agents can be added to the dyebath to suppress the natural yellowness of wool, and to avoid the first-break effect on exposure to light. His reductive bleaching agents are mild and can be used in the dyebath with most acid reactive and wool-reactive dyes. See page 10-11. Reincke teaches dyeing wool/polyamide in section 9.3 on page 12.

Schmidt teaches that wool may be simultaneously dyed and bleached with acid wool dyes. See abstract. See p 7. Applicant's claimed acid yellow is a known acid wool dye. It is also a fluorescent dye. Accordingly, Both Reincke and Schmidt teach dyeing and bleaching with a dye as claimed.

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Turner (col 3 lines 18-22) and Carroll (example V bridging col 7-8) disclose textiles comprising 85%wool and 15% nylon. Carroll further teaches dyeing said textile in a jet dyeing machine.

Horlacher et al. discloses fluorescent dyes, anionic fluorescent brighteners, that may be used with wool, polyamide and felts. See col 13 lines 4-19. The nylon 6.6 claimed in claim 7 is a synthetic polyamide.

It would have been obvious to the skilled artisan to dye the blended wool/nylon product as disclosed by Turner or Carroll in a process of dyeing and bleaching as taught by either Reincke or Schmidt for the benefits that simultaneous dyeing and bleaching provides. Reincke teaches that reductive bleaching has an enhanced whitening effect especially when combined with optical brighteners. See page 4 second paragraph. Schmidt teaches that combined dyeing and bleaching with acid dyes provides a simple way of dyeing and bleaching in one operation. See col 1 line 49-51. It would have been obvious to further dye and bleach the claimed felt with the fluorescent whitening agent of Horlacher et al because those anionic whitening agents are used in an acidic environment to brighten wool and nylon.

Regarding the limitation of claim 19, acid dyes on wool/nylon are always dyed in an acidic environment, and applicant claims a mildly acidic environment which would not damage wool.

Regarding the limitation of claim 23, Reincke states that his reducing compositions bind iron and other heavy metals, thereby being a functional equivalent to the inorganic bleaching agent with chelating agent claimed in claim 23 absent evidence

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to the contrary. Regarding the limitation of claim 16, Reincke claims that all washing agents improve the bleaching effect (page 4 first paragraph, and the claimed partitioning agent is an anionic washing agent. Regarding the limitation of claim 18, the liquor ratio claimed is conventional for jet dyeing. Regarding the limitation of claim 19, Reincke states that that is the conventional method before his improved method. Accordingly, though it is not a time saving measure, it is certainly not a novel alternative. Reincke states that the combination of brighteners with reductive bleaching agents enhance the brightening effect. Schmidt states that his bleaching and dyeing process with acid dyes produces dyeings that are "just as beautiful and bright as when the goods have been bleached prior to dyeing." Col 6 lines 37-39. Accordingly, bright dyeings with acid dyes on wool are taught.

Regarding claim 24, the subject matter would have been obvious to the skilled artisan because the patentability of a product by process claim does not depend on its method of production and where the examiner has found a similar product, the burden rests with the applicant to prove that that product is patentably distinct. See *In re Thorpe*, 227 USPQ 964 (CAFC 1985); *In re Marosi et al*, 218 USPQ 289; *In re Pilkington*, 162 USPQ 145. Regarding the limitations of claims 27+ and 32+, the prior art does not describe the products in terms of chroma, reflectance and lightness, and the patent office is not equipped with test equipment. Accordingly, the combination of prior art references above teaches how to form very bright, wool blend product. The burden is on applicant to prove that his product is superior to a wool blend product dyed and bleached by the processes of Reincke and/or Schmidt.

Response to Arguments

Applicant's arguments filed 8/28/03 have been fully considered but they are not persuasive. The rejection is maintained as applied to the process and product by process claim. Applicant's arguments are persuasive regarding the product of claim 27 and its dependent claims. The combination of references does not teach a product similar to the product of claim 27.

Applicant argues that that Reincke is not relevant to dyeing with a yellow dye because he has reference to a white fabric, not a dyed yellow fabric. Reincke teaches that wool is dyed to enhance the brightening effect. In other words, the dull brownish yellow of natural wool is removed in order to produce a brighter shade. Applicant provides a brighter shade of yellow because the bleach removes the underlying dullness as taught by Reincke. Applicant further states that Reincke requires two bleaching steps to bleach to full whiteness. On the contrary, Reincke states on page 5 section 3.1, "Wool which is bleached oxidatively or reductively does actually become whiter on exposure to light." Accordingly Reincke teaches how to make wool whiter, that is brighter. Schmidt likewise teaches that "It is often necessary or desirable to bleach the proteinaceous fibrous material so that the dyes may have full action." Col 1 lines 33-35. Accordingly, both teach the notoriously known fact that wool is bleached in order to enhance the brightness of dyeings. Schmidt specifically teaches that wool is dyed with acid dyes. That is another well known fact in the dyeing art. Regarding the statement that the combination of references does not teach a yellow dye, the process of bleaching wool, or wool combined with nylon, and then dyeing with acid dyes is

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known. Whether the dye used is a blue dye or a yellow dye or any other color dye, the process of dyeing is the same. Applicant further states that Schmidt teaches that his process produces dyeings that are just as bright and beautiful as goods bleached prior to dyeing. This office reads that statement as disclosing that bleaching wool before dyeing is a traditional process for obtaining superior brightness in dyed wool.

Applicant challenges the examiner as follows: The examiner must show that the variation is not significant. In response to this,, the greatest difference in the measurements is 10 units, which is the reflectance (119.8 vs 129.9) is 7.69% which is not significant. The difference in chroma is less than 1%; the difference in lightness is 3%. In response to the statement that he specification does not show how the comparison was done, Applicant points to how the reflectance parameters were measured. There is no specific data how the prior art balls were constructed or dyed, not is there any evidence that more than one ball was compared in order to provide a statistical sample of the prior art balls and the inventive balls. A direct comparison with the compositions of the reference is required. Said comparison must be commensurate in scope with the claims. One exemplification of the claimed tennis balls will not overcome the rejection. Applicant is directed to M.P.E.P716.02 (d) and (e) for the requirements of comparisons which will overcome a prima facie case of obviousness. Objective evidence of unobvious results must be commensurate in scope with the claims. *In re Prater*, 162 USPQ 541; *In re Tiffin*, 172 USPQ 292; *In re Linder*, 172 USPQ 356; *In re Greenfield*, 197 USPQ 227

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Where unobvious results are relied upon as a basis for patentability, a proper comparative showing is a minimum requirement. *In re Eisenhut*, 114 USPQ 287. The nonobviousness of a broader range can be supported by evidence based on results of a narrower range if one of ordinary skill in the art would be able to determine a trend in the exemplified data which would allow the artisan to reasonably extend the probative value thereof. *In re Kollman*, 595 F.2d 48, 201 USPQ 193 (CCPA 1979). Since only one ball was compared, there is no way to determine a trend in the data provided.

Accordingly, since the prior art teaches the process of bleaching and dyeing with acid dyes, applicant's comparisons are not commensurate in scope with the claims, and the results are not unobvious since the prior art teaches how to brighten wool dyeings, the claims remain rejected.

Claims 27, 29, 31, 39-46, 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art tennis balls "Milliken Standard Yellow Felt (std. F/Y) and "Milliken High Visibility Yellow Felt (Hi. Viz. F/Y)" as disclosed on page 21 of the specification or Moore et al, US 5,592,245 in view of Reinecke, "Woolbleiche etc., Reinert, US 5,074,885 and Schmidt, US 3,551,087. The Milliken balls, as well as the fluorescent yellow tennis ball of Moore, are conventional fluorescent dyed tennis composed of a wool/synthetic felt. Accordingly the difference between these balls is thatⁱⁿ the claimed balls is that applicant has produced a ball having a greater reflectance, deeper chroma and higher standard of lightness than the conventionally used tennis balls. The three secondary references all teach that wool is bleached before dyeing in

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order to improve its whiteness. Reinecke states on page 5 section 3.1, "Wool which is bleached oxidatively or reductively does actually become whiter on exposure to light." Accordingly Reinecke teaches how to make wool whiter, that is brighter. Schmidt likewise teaches that "It is often necessary or desirable to bleach the proteinaceous fibrous material so that the dyes may have full action." Reinert states at col 1 lines 7-12, "The present invention relates to a process for the dyeing of wool to produce lightfast, very bright, brilliant shades. In the dyeing of wool, it is often required to subject the wool material to be dyed to a bleaching operation for the dyes to become fully effective."

It would have been obvious to the skilled artisan that the process of producing a brighter color on wool containing fabrics has been known. The process is to bleach the wool and dye with an acid dye. Applicant states in the specification at page 5 line 7, "The need to bleach a yellowish-fiber (natural wool) prior to or during is counter-intuitive, but we have found that the performance of the dye is greatly enhanced by this step. One skilled in the art knows that not only is said step not counter-intuitive, it has been done in the prior art for many years, as Schmidt states that it may be necessary for the wool dyes (that is acid dyes as applicant uses) to have full action. (col 1 line 33) and Reinert states that a bleaching process is often required for dyes to be fully effective.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 22, there is no antecedent basis for "quasi-simultaneously. Applicant has pointed to the basis in the specification. However, for the claim to be properly dependent on claim 1, that term must appear in claim 1.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 27, 29,31,39-41, 43-46, 48 are rejected under 35 U.S.C. 112; first paragraph, because the specification, while being enabling for a fabric material containing at least 40% wool, does not reasonably provide enablement for the full scope of the claimed textiles and balls. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Page 4 line 26 et seq states that felt used to produce tennis balls typically has a wool content of 40% or higher. Accordingly the fabric material and balls made thereof must be limited to balls having that percentage of wool, since the specification is directed entirely to dyeing textile fabric material used for tennis balls.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret Einsmann whose telephone number is 703-

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308-3826. The examiner can normally be reached on 7:00 AM -4:30 PM M-Th and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 703-308-4708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Margaret Einsmann
Primary Examiner
Art Unit 1751

October 8, 2003